CHAPTER 8
HDVIP AND PSIP COST EFFECTIVENESS

As discussed in Section 7.1, the primary cost effectiveness of the HDVIP and PSIP cannot be estimated conventionally in terms of dollars per mass of pollution reduced. The primary focus of the HDVIP and PSIP is to reduce smoke emissions, a reduction which cannot be meaningfully addressed in terms of mass. As a result, primary program benefits were quantified in Section 7.1 in terms of the reduction in the number of excessively smoking heavy duty diesel vehicles operating in California.

As a secondary benefit, the HDVIP and PSIP also produce reductions in criteria pollutant emissions as a result of repairs performed to reduce excess smoke. These associated criteria pollutant impacts can be combined with program costs to derive a cost effectiveness estimate in units of dollars per pound of emission reduction. However, this cost effectiveness estimate only considers the secondary benefits of the HDVIP and PSIP.

As presented in Table 6-8, the net cost of the HDVIP and PSIP is estimated to be $22.4 million in 1999 and $20.2 million in 2010. The criteria pollutant emission reduction benefits of the programs are presented in Table 7-4 and total 23.84 tons per day in 1999 and 22.54 tons per day in 2010. Based on these estimates, the cost effectiveness of the secondary benefits of the HDVIP and PSIP is $1.29 per pound in 1999 and $1.23 per pound in 2010. Considering that emission control programs which primarily similar target criteria pollutant reductions typically cost between $2.50 and $5.00 per pound of emissions reduced, it is obvious that the HDVIP and PSIP are cost effective even if their primary smoke reduction benefits are not considered (i.e., when total program costs are assigned to secondary benefits only).